

### Abstract

A system for sterilizing or microbially deactivating instruments and devices. The system includes a circulation system for circulating a microbial deactivation fluid through a chamber for containing the instruments and devices. The chamber forms a portion of the circulation system. The system further includes a fluid over-flow/make-up air assembly. The fluid over-flow/make-up air assembly includes a manifold having an inner cavity that is in fluid communication with the circulation system, an overflow port in the manifold, and an overflow valve assembly disposed in the manifold allowing fluid flow from the cavity to the overflow port when a pressure in the cavity exceeds a pressure in the overflow port by a predetermined amount. A filter assembly is attached to the manifold. The filter assembly has a filter valve assembly in communication with the cavity. The filter assembly is operable to allow air through the filter assembly into the cavity when the pressure within the cavity is a predetermined amount less than the pressure within the filter assembly.